

## Calculations for the Proportional Reduction Method

The Proportional Reduction Method reduces each company's support by a uniform percentage; thus, this method sets the support amount. Under the Proportional Reduction Method, each company's original support amount, which was calculated at a maximum funding amount per location of \$200, would be reduced proportionally to meet the budget. Since each company's offer of support has been reduced, the company's build-out obligation will likewise have to be adjusted.

To solve for each company's Build-Out Obligations, the Maximum Funding per Location must be known or calculated. Under the Proportional Reduction Method, the Revised Offer of Support amount is calculated, and then the Maximum Funding Amount per Location is solved for by summing each company's support, census block by census block, until the company's Revised Offer of Support is reached. At this point, the Maximum Funding Amount per Location is known. The Maximum Funding Amount per Location for a company is calculated using the following iterative calculation:

1. Set the Maximum Funding Amount per Location equal to \$1.
2. Calculate the Maximum Funding Amount per Location such that the cumulative support amount is equal to the Revised Model Offer of Support:
  - a. Calculate the cumulative support amount for all of the company's eligible locations.
  - b. If the cumulative support amount for all eligible locations is less than the Revised Offer of Model Support, increase the Maximum Funding Amount per Location.
  - c. Repeat steps 2.a. and 2.b. until the cumulative support amount is equal to the Revised Model Offer of Support.

When the Maximum Funding Amount per Location generates the same cumulative support as the Revised Offer of Support, count the number of locations that are capped and uncapped. Use the Build-Out formula described in the FCC Rate-of-Return Order to calculate the required 25/3 M, 10/1 M, 4/1 M and reasonable request counts. These steps are repeated for each company that has selected model support.

Under the Proportional Reduction method, each company's Maximum Funding Amount per Location will be different because each company's demographic mix and geographic parameters are different. The following example shows that the Maximum Funding Amount per Location is different for each company:

## Proportional Reduction Example

Company A:

CB	Cost	HH	Total Cost	Original Support per Location	Original Support at \$200 per Location	Revised Support at 80% of Original Support	Revised Support at \$147.90 per Location
1	\$120	3	\$360	\$67.50	\$202.50	\$202.50	\$67.50
2	\$240	2	\$480	\$187.50	\$375.00	\$295.80	\$147.90
3	\$350	2	\$700	\$200.00	\$400.00	\$295.80	\$147.90
4	\$420	1	\$420	\$200.00	\$200.00	\$147.90	\$147.90
		8	\$1,960		\$1,177.50	\$942.00	

Company A's Original Offer of Support was \$1,177.50 at a Maximum Funding Amount per Location of \$200.00. Assume that the ACAM was oversubscribed and each company's support must be reduced to 80% of its Original Offer to meet the budget. Thus, Company A's Revised Offer of Support is  $\$1,177.50 \times 80\% = \$942.00$ . Using the iterative calculation method described above, Company A's Maximum Funding Amount per Location is \$147.90 to create total support equal to \$942.00, or 80% of its Original Offer.

Company B:

CB	Cost	HH	Total Cost	Original Support per Location	Original Support at \$200 per Location	Revised Support at 80% of Original Support	Revised Support at \$110.25 per Location
1	\$120	4	\$480	\$67.50	\$270.00	\$270.00	\$67.50
2	\$180	3	\$540	\$127.50	\$382.50	\$330.75	\$110.25
3	\$200	4	\$800	\$147.50	\$590.00	\$441.00	\$110.25
4	\$250	1	\$250	\$197.50	\$197.50	\$110.25	\$110.25
		12	\$2,070		\$1,440.00	\$1,152.00	

Company B's Original Offer of Support was \$1,440.00 at a Maximum Funding Amount per Location of \$200.00. Assume that the ACAM was oversubscribed and each company's support must be reduced to 80% of its Original Offer to meet the budget. Thus, Company B's Revised Offer of Support is  $\$1,440.00 \times 80\% = \$1,152.00$ . Using the iterative calculation method described above, Company B's Maximum Funding Amount per Location is \$110.25 to create total support equal to \$1,152.00, or 80% of its Original Offer.

The following example shows that under a Uniform Maximum Support per Location reduction method some companies have a much larger reduction in support than do other companies:

### Uniform Maximum Support per Location Example

Company A:

CB	Cost	HH	Total Cost	Original Support per Location	Original Support at \$200 per Location	Revised Support per Location at \$124.75	Revised Offer at \$124.75 per Location
1	\$120	3	\$360	\$67.50	\$202.50	\$67.50	\$202.50
2	\$240	2	\$480	\$187.50	\$375.00	\$124.75	\$249.50
3	\$350	2	\$700	\$200.00	\$400.00	\$124.75	\$249.50
4	\$420	1	\$420	\$200.00	\$200.00	\$124.75	\$124.75
		8	\$1,960		\$1,177.50		\$826.25

Company A's Original Offer of Support was \$1,177.50 at a Maximum Funding Amount per Location of \$200.00. Assume that the ACAM was oversubscribed and all companies' Maximum Funding Amount per Location is reduced to \$124.75 to meet the budget. Company A will now receive \$826.25, or 70% ( $\$826.25/\$1,177.50$ ) of its Original Offer.

Company B:

CB	Cost	HH	Total Cost	Original Support per Location	Original Support at \$200 per Location	Revised Support per Location at \$124.75	Revised Offer at \$124.75 per Location
1	\$120	4	\$480	\$67.50	\$270.00	\$67.50	\$270.00
2	\$180	3	\$540	\$127.50	\$382.50	\$124.75	\$374.25
3	\$200	4	\$800	\$147.50	\$590.00	\$124.75	\$499.00
4	\$250	1	\$250	\$197.50	\$197.50	\$124.75	\$124.75
		12	\$2,070		\$1,440.00		\$1,268.00

Company B's Original Offer of Support was \$1,440.00 at a Maximum Funding Amount per Location of \$200.00. Assume that the ACAM was oversubscribed and all companies' Maximum Funding Amount per Location is reduced to \$124.75 to meet the budget. Company B will now receive \$1,268.00, or 88% ( $\$1,268/\$1,440$ ) of its Original Offer.